

PRODUCTION OF HIGH-PURITY MALTOSE

Publication number: JP2119789 (A)

Publication date: 1990-05-07

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Classification:

- international: C12P19/12; C12N15/09; C12P19/14; C12P19/16; C12P19/22; C12R1/07; C12R1/125; C12N15/09; C12P19/00; (IPC1-7); C12N15/56; C12P19/12; C12P19/14; C12P19/22

- European: C12P19/14

Application number: JP19880270855 19881028

Priority number(s): JP19880270855 19881028

Also published as:

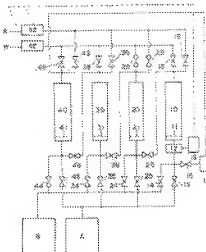
JP2696537 (B2)

US5141859 (A)

Abstract of JP 2119789 (A)

PURPOSE: To readily, industrially and advantageously obtain the subject compound even from economically advantageous terrestrial starch by saccharifying a gelatinized starch with a general-purpose enzyme and then saccharifying the resultant product with a special enzyme produced by genetic recombination under specific conditions.

CONSTITUTION: An aqueous solution of starch in 5-15wt.% concentration is initially thermally gelatinized and the resultant gelatinization product is then saccharified with two or more enzymes selected from beta-amylase, pullulanase and isomylase.; Maltogenic-alpha-amylase produced by integrating a plasmid having a part coding maltogenic-alpha-amylase which is a gene of *Bacillus stearothermophilus* fitted therein into *Bacillus subtilis* is then added thereto at a time of 1-24hr after starting the saccharification to continue the saccharification for 10-48hr from the start thereof. After completing the saccharification, pH is regulated to <4.5 to remove water-insoluble components. Dextrin in the solution is subsequently hydrolyzed with a liquefying enzyme and then purified to afford a saccharide liquid containing 94.5wt.% maltose based on solid substances.



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